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| 10/700,078 | 11/03/2003 | Brian Michael Bridgewater | A01463 | 3734 |

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ROHM AND HAAS COMPANY
PATENT DEPARTMENT
100 INDEPENDENCE MALL WEST
PHILADELPHIA, PA 19106-2399

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| EXAMINER |
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RONESI, VICKEY M

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1714

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/700,078
Filing Date: November 03, 2003
Appellant(s): BRIDGEWATER ET AL.

Robert Stevenson
For Appellant

SUPPLEMENTAL EXAMINER'S ANSWER

Note: This Supplemental Examiner's Answer corrects section (8) to indicate references relied upon. Apart from this, nothing else has been changed.

This is in response to the appeal brief filed 2/10/2006 appealing from the Office action mailed 9/15/2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1-7.

Claims 10-14 are withdrawn from consideration as not directed to the elected invention.

Claims 8 and 9 have been canceled.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is deficient. 37 CFR 41.37(c)(1)(v) requires the summary of claimed subject matter to include: (1) a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number, and to the drawing, if any, by reference characters and (2) for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function as

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permitted by 35 U.S.C. 112, sixth paragraph, must be identified and the structure, material, or acts described in the specification as corresponding to each claimed function must be set forth with reference to the specification by page and line number, and to the drawing, if any, by reference characters. The brief is deficient because appellants have not described claim 2, an independent claim, which differs from claim 1 in that less total initiator is used (0.05-0.3 wt % based on dry polymer weight).

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 5,731,377

Friel

3-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-5 and 7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Friel (US 5,731,377, cited on IDS dated 5/20/2004).

It is noted that claims 1 and 2 are product-by-process claims where the phrase starting with "said emulsion polymer is formed by emulsion polymerization..." on line 7 of each claim until the end of the claim is not a claim limitation. Case law holds that "even though product-by-

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process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Friel discloses a polymer blend useful as a binder in aqueous coating composition comprising no volatile organic solvent (col. 11, line 50); 40-80 wt % of a soft polymer having a T_g less than about 15 °C (preferably -5-10 °C); and 20-60 wt % of a hard emulsion polymer having a T_g greater than about 20°C (preferably 25-65 °C) (col. 12, lines 1-22), wherein the composition has a pigment volume concentration of 23.65 % (col. 10, line 13). Friel exemplifies the use of two soft polymers (Sample 3 and Sample 7) where *Sample 3* contains 97 wt % butyl acrylate and methyl methacrylate (i.e., monoethylenically unsaturated nonionic (meth)acrylic monomer), 2 wt % methacrylic acid (i.e., monoethylenically unsaturated acid monomer), and 1 wt % ureido-containing adhesion promoting monomer (i.e., aldehyde reactive group-containing monomer) and *Sample 7* contains 59 wt % butyl acrylate and methyl methacrylate, 2 wt % methacrylic acid, and 1 wt % ureido-containing adhesion promoting monomer (Table 1 on column 7, col. 8, line 30-35). Additionally, see Table 1 for amounts of initiator (ammonium persulfate) and neutralizer (sodium carbonate).

In light of the above, it is clear that Friel anticipates the presently cited claims.

Alternatively, given that the final products appear to be the same, it would have been obvious to one of ordinary skill in the art to obtain the presently claimed product with a different process.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friel (US 5,731,377, cited on IDS dated 5/20/2004).

With respect to PVC, Friel only exemplifies one painting composition and therefore only explicitly discloses one value for PVC, nonetheless, it teaches that the amount of pigment affects the glossiness or mat of the resulting coating (col. 1, lines 44-48).

It is the examiner's position that the amount of pigment and therefore the PVC is a result effective variable because changing it will clearly affect the type of product obtained, e.g., a coating with a mat or glossy finish. See MPEP § 2144.05 (B). Case law holds that "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

In view of this, it would have been obvious to one of ordinary skill in the art to utilize a higher content of pigment including that within the scope of the present claim so as to produce desired end results, i.e., a less glossy finish.

(10) Response to Argument

Appellants argue that large differences in scrub resistance are observed when using the process of the instant product-by-process claims and that the inventive and comparative data are proper side-by-side examples even with "minor adjustments" of rheology modifier.

First, while the rheology modifier type and level may not affect the scrub resistance of a coating, such is not established by Dr. Gebhard's statements that "[he] believe[s] that the side-by-side comparisons are appropriate" and that "in [his] opinion, the thickener has no significant effect on the scrub resistance of a given paint formulation at a given film thickness." While Dr.

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Gebhard's statements are appreciated, his beliefs or opinions are only conclusory statements with no evidentiary weight. To clearly establish the insignificance of the type of level of rheology modifier and that the inventive and comparative data are proper side-by-side examples, such be clearly supported with factual evidence.

Second, the inventive and comparative data of the specification are not commensurate in scope with the claimed invention. Case law holds that evidence is insufficient to rebut a *prima facie* case if not commensurate in scope with the claimed invention. *In re Grasselli*, 713 F.2d 731, 741, 218 USPQ 769, 777 (Fed. Cir. 1983). In particular, only one type of acrylic emulsion polymer, initiator, and neutralizer are exemplified. Furthermore, the ranges of amounts of initiator (ammonium persulfate) and neutralizer (sodium carbonate) used in examples are not commensurate in scope with the presently claimed process ranges. See the Tables below.

Given that the amounts of initiator and neutralizer are important in the presently claimed process and further given that appellant has not shown that improved scrub resistance properties are had throughout the presently claimed amount ranges, criticality for the entire scope of the presently claimed process on the final product cannot be supported.

Table 1: Comparison of Claim 1 to inventive and comparative data of the specification as originally filed.

| | Emulsion | Total Initiator (wt % based on polymer) | Initiator, first 10% (wt % based on polymer) | Neutralizer (eq. basis of acid monomer) | Neutralizer, first 25 % (wt % based on total neutralizer) |
|----------------|-----------------------------|---|--|---|---|
| <i>Claim 1</i> | <i>Any acrylic emulsion</i> | <i>0.3-0.4</i> | <i>open-ended < 0.15</i> | <i>5-75</i> | <i>open-ended < 50</i> |
| Example 1 | MAA/BA/MMA | 0.35 | 0.078 | 34.5 | 5 |
| Comp. Ex. A | MAA/BA/MMA | 0.35 | 0.078 | 34.5 | 100 |
| Comp. Ex. B | MAA/BA/MMA | 0.35 | 0.272 | 34.5 | 100 |

Table 2: Comparison of Claim 2 to inventive and comparative data of the specification as originally filed.

| | Emulsion | Total Initiator (wt % based on polymer) | Initiator, first 10% (wt % based on total initiator) | Neutralizer (eq. basis of acid monomer) | Neutralizer, first 25 % (wt % based on total neutralizer) |
|----------------|-----------------------------|---|--|---|---|
| <i>Claim 2</i> | <i>Any acrylic emulsion</i> | <i>0.05-0.3</i> | <i>open-ended < 50</i> | <i>5-75</i> | <i>open-ended < 50</i> |
| Example 2 | MAA/BA/MMA | 0.135 | 22.2 | 34.5 | 5 |
| Comp. Ex. C | MAA/BA/MMA | 0.135 | 22.2 | 34.5 | 100 |
| Comp. Ex. D | MAA/BA/MMA | 0.135 | 77.8 | 34.5 | 100 |

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Vickey Ronesi *VR*
Assistant Examiner
Art Unit 1714

Conferees:

Vasu Jagannathan
Vasu Jagannathan

James Seidleck
James Seidleck

Vasu Jagannathan
VASU JAGANNATHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700